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ABSTRACT

This paper focuses on two things: (1) the current status of the literature related to the standards for admissions, selective retention, and student involvement in program development and evaluation, and (2) identified areas in need of additional research in relation to these same three areas in the standards. Various topics included in the first part are: (1) admissions criteria, (2) collecting admissions information, (3) decision making in admissions, (4) student self selection, (5) instructional influence, (6) behavior modification, and (7) contributions of students. A total of 29 recommendations are given in the second section. They are by-products of the inferential and judgmental activities used in the first section. Since there have not been enough studies done to warrant placing a blind faith in the standards at this time, a real need for additional study does exist. (author/KJ)

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II. STANDARDS OF STUDENT SELECTION AND INTERACTION.

This paper will attempt to focus on two things: (1) the current status of the literature related to the standards for admissions, selective retention, and student involvement in program development and evaluation; and (2) identified areas in need of additional research in relation to these same three areas in the standards. It should be understood that few if any studies really exist that involve the substance of the standards directly. What is presented, therefore, is relative and reflects an inferential and judgmental process on the part of the writer.

Since the paper proceeds from an inferential and judgmental base, the reader is cautioned that it will be necessary for him to make his own decisions and draw his own conclusions using his own frame of reference. There are, however, a number of factors a reader should consider in attempting to gain some perspective on the treatment of information in this portion of the standards.

GAINING A PERSPECTIVE

One factor to be considered is the matter of standards. Stated simply, a standard is anything used as a basis for comparison. It is assumed standards are developed to permit one to make comparisons between or among individuals or groups, or to compare individuals or groups with some predetermined and minimally desirable level of excellence. In the case of accreditation, it is assumed standards are developed for the purpose of determining the extent to which a given institution fails to meet, equals, or exceeds some minimally desirable level of excellence in selected areas.

Standards, however, may be provided in three or more ways. (1) They may reflect a series of activities in which an institution is expected to engage. (2) They may indicate various quantities or degrees of given states of affairs one should possess or provide. (3) They may indicate both a series of activities and minimal quantities or degrees an institution is expected to produce in relation to those activities. In the case of standards related to admissions, selective retention, and student involvement in program development and evaluation, the reader should bear in mind the standards provided reflect an indication of a series of activities in which an institution is expected to engage.

A second consideration may be illustrated best by example. If one is interested in selecting a parachute and intends to use the findings of research on different brands of parachutes in selecting one, then it is important that the selection be supported by research findings reflecting the highest level of significance possible. If one is afflicted with cancer and in search of some cure, then any level of significance for almost any possible treatment may be acceptable. In considering the literature related to this portion of the standards, the question of level of significance of the findings one will accept will be an individual matter and will reflect the amount of urgency and need the reader perceives in relation to the standards.

The matter of priorities constitutes a third consideration. It is no doubt more comforting and convenient to believe one can and does deal with the matter of

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standards by investigating all parts concurrently. The fact remains, however, that some parts of the standards are given positions of greater and less importance. It seems important that the reader recognize and understand the basis used to make these distinctions. In particular it seems important for the reader to reflect on the concept of critical functions and priorities as he responds to the whole matter of admissions, selective retention, and student interaction in the program.

Whatever the reasons given, the fact remains as a fourth consideration that a high priority has been given to the identification of teacher competence or effectiveness as such identification leads to improved ability on the part of institutions to select students and educate them in the ways of teaching. Part of the reader's response to current investigations of the standards will undoubtedly reflect the degree of agreement or disagreement he has with the priority given this identification process. But even for those who agree with the priority there is still another consideration to be made. This involves the extent to which the teacher effectiveness is to be determined in relation to ultimate rather than proxiamte learning outcomes (39) (52).

A fifth consideration involves the position the reader wishes to take regarding the extent to which the standards should reflect a preference for individual as opposed to institutional or professional expectations. Individual expectations require standards based on maximizing the uniqueness of each individual. Institutional or professional expectations require the identification and development of both common experiences for all candidates and the use of assessment practices based on comparisons among candidates. The implications for the standards and program development depending upon the position taken are extremely important.

Finally, there is the personal matter of definitions, substantively and operationally, the reader intends to use in treating the literature related to this portion of the standards. For example, at one point in time, the efficacy of recruitment procedures as a part of a working definition of admissions could be found. Recruitment now seems to be a matter of history. There is also the matter of how inclusive an individual wants to be in defining many of the terms in the standards. Some may wish to use definitions they feel are quite literal. Others may wish to combine or otherwise blend two or more activities into one operational definition. The differences in definition will also make a difference in reader response to this treatment of the standards.

In summary, the reader is reminded of a need to develop some notion of a position regarding the scope, sequence, and substance of those activities he supports as significant parts of the section of the standards under consideration here. The six considerations suggested above are felt to be important to the formation of such a position.

DEFINITION OF TERMS

To facilitate communications and to provide some baseline from which the reader can develop his own notions, the following definitions of terms served to guide the writer in his search for related literature, and the same definitions will be used to help organize the presentation of material on subsequent pages.

Admissions, as the term is used here, refers only to the initial selection process. Included in the process are the establishment of selection criteria, collection of data related to the criteria, and the decision making process employed to select some students for the program and to reject others.

Selective retention, as the term is used here, refers to a process of continuous evaluation of those already admitted to the program for the purpose of further refining the quality of the candidates who will be graduated and certified to teach. Included in this process is the study of the development of the individual in terms of stated skills and competencies that constitute a continuum of learning outcomes for prospective teachers.

Student involvement in program development and evaluation, as the term is used here, refers to a deliberate and planned program of interaction between students and the institution for the purpose of analyzing and assessing existing programs, and for developing new programs. Included in such a program would be student responses, orally and in writing, to the nature and extent of the objectives, content, and methodology in existing programs, and the inclusion of student members on those committees and study groups dealing with curriculum and instruction.

Student teacher, as the term is used here, refers to the student seeking to gain certification as a teacher. The term is not restricted by definition to those engaged solely in "student teaching" in the laboratory phase of teacher education programs.

LIMITATIONS

The reader should understand that the substance of this paper is essentially a study of studies. As a result, findings and conclusions are not based on an exhaustive examination of all available literature; rather, those studies included are considered to be illustrative of the larger body of information.

The substance of the paper is further limited by both the quality and inferential potential of both the studies used and the standards themselves.

Finally, those areas suggested as areas in need of additional research largely reflect the suggestions of others writing in the field. There is no claim made either for the urgency or presumed utility of the kinds of studies proposed.

ORGANIZATION

The remainder of this paper will be divided into two broad presentations. The first part will include a description of findings from the literature which the writer judged to be illustrative of the current level of information related to the standards under consideration. The second part will attempt to make recommendations for further study.

THE STANDARDS

In this portion an effort will be made to describe what the literature seems to report regarding admissions, selective retention and student involvement in program development and evaluation. The reader is reminded again that few if any studies exist that treat the substance of the standards directly. The nature of the following, therefore, is relative and depends on inferential and judgmental processes.

ADMISSIONS

Admissions have been divided into four components: (1) criteria, (2) data collection procedures, (3) decision making activities in admissions, and (4) general.

CRITERIA. In order for an admissions program to operate it must have some criteria it intends to use as a basis for drawing comparisons either among students or between students and some minimally desirable model of a prospective applicant. Edson (30), MaGee(47), O'Donnell (58), Stout (75), among others, indicate the use of grade point hour, selected course grades, and some measured competency in oral and written expression in most criteria for admissions. O'Donnell (58) also found that emotional stability is identified in some programs as a criterion. Lucio and others (46) have pointed toward the inclusion of more psychophysiological factors in the criteria for admissions. While Lucio is concerned with developing predictive indices to help identify people who ought to be directed toward some other occupational goals, it seems to follow that if the use of psychophysiological factors will permit us to make the kinds of distinctions suggested, then the same factors should become effective items for use in admissions work. In addition to other criteria already identified, there are isolated instances where one may also find measures of attitudes or belief systems as suggested criteria in admissions work (58) (70).

While work using grades or grade point averages, for example, may be useful as internal checks on the kinds of students one has in a program (31) (32), the evidence seems to suggest that grades, as well as personality or attitudinal measures, still have no predictive validity (20) (24) (60). Shaver (70) did find a correlation between open-closed mindedness and selected teacher characteristics, but he conceded his findings were of little value unless the relationships could be confirmed in classroom situations. There is little to suggest that there is anything different now regarding grades as predictors from the conclusions drawn by Domas and Tiedeman (27) or conclusions reached from similar reviews of literature as, for example, in the case of Mascho and others (48). One inevitably seems to come back to the decades-old problem of general agreement on the idea of admissions but a lack of significant and consistent evidence to support any criteria for an admissions process. Mascho and others seem to sum up the current state of affairs nicely where current and typical criteria for admissions are used:

> Despite decades of research on the problem, educators must face the fact that there is no common agreement on describing or evaluating teacher competence. Further, it is one thing to assert that a teacher should possess cheerful, friendly and sympathetic characteristics rather than their opposites, but it is quite another to identify in objective terms the specific and distinctive qualities of an effective teacher (48).

In addition to this problem, there is the whole unresolved matter of ultimate versus proximate behavioral outcomes which must be settled if criteria are ever to be established (39).

There are other problems of note quite apart from being able to describe the characteristics definitively. McClure (51) reminds us that while personality may be an acceptable label for some potential selection criteria, the eventual relationship, even if it is established, will have to be established in such a way as to mediate objections likely to follow from those both inside and outside the profession.

Cook examined another dimension of selection criteria often ignored in research on admissions when he studied personal data and a relationship to success in teacher education programs and entry into teaching. As Cook reasons, if such data is collected, then it must serve some valuable purpose in telling us important things about those seeking to become teachers. Although the study is limited in terms of its inferential potential, Cook's findings raise serious questions as to the real significance of personal data for matters of admission to or retention in a teacher education program.

Part of the problem in many of the studies seems to be centered around the validity and reliability of grades. As some of the studies suggest, there appear to be efforts being made to circumvent the use of grades in the belief that grades are too faulty themselves to provide any useful base for projections or viewing predictive validity (46) (70). Perhaps the direction taken by Muro (55) points to one of the most important considerations in relation to grades. In his study the key variable seemed not bo be the grade earned but the amount of convergence between the thrust of a course and the concerns of students in the course.

The notion of concerns seems to open other avenues for possible investigation, not only in relation to grades but in the whole relation between concerns and the ability of students to benefit from a preparatory program in teacher education. In particular, the work of Fuller (34) (35) would seem to hold real promise for further exploration. Certainly the basic rationale for responding to concerns and the conceptualization provided would seem to give promise of producing fruitful evidence in relation to both admissions and selective retention.

Further, if some of the findings involving different modes of counseling of students can be supported by future efforts (9) (38) (59) (64) (74), or continued results such as those obtained by Koran (43), Hart (36) and MacCall (50) in matters of modifying actual classroom behavior can be projected, then it may be possible to discontinue any notion of institutional or professional program of admissions and make a valid assumption that it is possible to prepare all comers to be the kinds of teachers they are capable of becoming. And should individualization prevail, then the notion of selection ratios (63) will assume greater significance in

admissions work.

One final observation needs to be made involving criteria. There is some indication, as for example in the case of Ort's effort (60) and Cohen's undertaking (22), to suggest that the best predictors of future success have been found in the descriptive analyses of student teachers provided by cooperating teachers and university coordinators. More than three decades ago, Beeley (8) presented the idea of clinical techniques to be used in the selection of prospective teachers. It would seem that the evidence gained from laboratory experiences, combined with the counseling and individual learning experiences identified earlier, might suggest much greater attention to a form of performance screening as the basic technique in admissions work.

In summary, it may be said that no real research exists that tests the validity and reliability of admissions programs. The evidence does suggest the existence of diversified programs with some commonly used criteria like grade point average, grades in particular courses, and competency in both the oral and written aspects of English. Further, there is little if any evidence to suggest that any or all such criteria do permit institutions to predict future success above the level of chance. There is still the unresolved notion of whether measures of teacher competency are to be derived from proven relationships to ultimate rather than proximate kinds of learning outcomes. Finally, such matters as the role of student concerns, the concept of performance screening as the basic tool in admissions work, and the significance of individual over institutional expectations, all remain a state of relative uncertainty in matters of admissions and criteria for admissions.

COLLECTING ADMISSIONS INFORMATION. While no actual count is provided, one may infer that most institutions, (1) have students complete a personal data sheet, (2) maintain a cumulative record of grades and test scores, and (3) conduct something loosely called an interview as their basic procedures for collecting information about applicants. There is isolated evidence--the University of Pittsburg (81), Florida State University (33), University of Georgia (79), the University of New Mexico, and the writer's own institution--to suggest something of a beginning toward developing a more complete data bank on those seeking admissions. None of these efforts, however, have been combined or expanded into more concerted efforts to date under the auspices of some central agency. Until they are, there is very little prospect for them to provide significant help to the membership-at-large.

The literature would seem to suggest that the matter of procedures for collecting information still operates from some base of conventional wisdom in most institutions. And one is again reminded of the tendency of institutions to resort to methods presenting the greatest ease and convenience for them.

Perhaps the most discouraging thing in viewing efforts in data collection to date is the limited number of longitudinal studies completed or reported as being in progress. The efforts of Lucio (46) or Mascho and others (48) would seem to provide useful and practical examples for those more interested in exploring procedures for data collection than in building expansive bibliographies.

DECISION MAKING IN ADMISSIONS. Simply collecting data in relation to established criteria is not all there is to admissions. In order to do an effective

job in admissions, the decision making process employed must also make effective and efficient use of the information collected. In those cases where the criteria indicate minimally desirable levels of excellence that are easily quantified (31), the matter of the decision to be made would seem inconsequential. If, however, the information provided is both continuous and dichotomous and the criteria incorporate an expanded number of variables, then how the institution makes admissions decisions becomes a major consideration.

Bolton (11) examined the variables involved in decision making in the selection of teachers for teaching jobs. Although his work is not directly related to standards and admissions, it is judged to be relevant. As his study viewed the process, there are four dependent variables in decision making and selecting personnel: (1) time, (2) discrimination, (3) certainty, and (4) consistency. Bolton's remark, "Unless decisions are both discriminative and consistent, there is little foundation upon which to accumulate evidence as to the validity of the decisions being made," sums up the importance of the dicision making process in programs of teacher education (11). Bolton found that what kinds of information you use makes a difference in terms of the four dependent variables identified. He also provides a useful system of categorizing information by suggesting documents, interviews, and masked data (i.e. statements of exceptionalities) as possible labels.

There would seem to be a number of factors that impinge upon the decision making process, time and finance being two of the more obvious. Internally, however, the decisions must reflect valid and reliable distinctions among those selected and those rejected. The distinctions must be consistent and all those interested in the future of education must be assured the decisions made are actually selecting people who will "...have the ability and interest to carry a college program to completion and the personal characteristics to make a successful career in school work (29)."

As a legitimate part of the triad of admissions work--establishing criteria, collecting meaningful information, and making decisions for selection and rejection--the area of decision making seems quite neglected. As the efforts to select candidates become more complex, the relative importance of decision making would seem to demand that more study be devoted to the nature of the process in admissions work in teacher education programs.

GENERAL. Before moving on to the matter of selective retention, there are one or two general matters that need to be identified. One of these is presented by Rabinovitz and Mitzel (63) and involves the notion of a selection ratio and its impact on admissions work. As the authors suggest, a selection ratio is not an arbitrary value; it cannot be established without considering the relative size of "...the applicant and to-be-selected groups (63)." When numbers exceed openings, the ratio is low; when they are equal or openings exceed numbers, the ratio is high. As the authors demonstrate, during that period of time when schools were begging for teachers the notion of teacher education programs making distinct and discriminate decisions in admissions was a myth. The only concern was getting enough people out to meet the demands. The selection ratio was high. If the educated guesses some are making now in terms of manpower needs for the 1970's are accurate, the selection ratio will be lowering, and the implications for admissions are important. There is little evidence to suggest, however, that selection ratios have been seriously

treated in relation to standards on admissions.

The other general matter involves the development of complete admissions programs capable of taking candidates from their initial contact through to the actual placement of people in the first phases of a program. The University of Pittsburgh (81) has one possible model that seems worthy of consideration in its pilot program in elementary teacher education. The need for a complete admissions package should not be ignored as a search is made for criteria, data collection procedures, and decision making processes.

SELECTIVE RETENTION

Selective retention has been divided into (1) student self selection, (2) instructional influence, (3) program influence, and (4) behavior modification.

STUDENT SELF SELECTION. In an ideal sense, some might prefer that students be able to objectively analyze themselves and either remain in a program or drop out. There is little to suggest that students actually analyze themselves and then withdraw or continue. One may infer, however, that other forces and factors quite removed from the teacher education program do lead students already admitted to drop out before they complete a program. Notestine (57) found those who withdraw differ from those who continue in three personal areas, (1) lonesome and unhappy, (2) discouraged by low grades, and (3) lack of interest in studies. He also found that these same people had the lowest high school class rank for their group, and lowest Scholastic Aptitude Test scores in both the verbal and math areas. It seems more likely, however, that developments along the lines pursued by Lucio and others (46), as well as counseling efforts (59), may yield a more productive return in deciding who should and who should not continue in a program of teacher education. Left to their own devices, and assuming grades can be maintained, conventional wisdom seems to suggest few if any students will select themselves out of a program regardless of their self perceptions.

INSTRUCTIONAL INFLUENCE. The overall report provided by Bush and Gage (17) of developments and conclusions reached in the center at Stanford would strongly support both the notions of instructional and program influence in matters of selective retention. One can infer from the description provided of programs and outcomes that both areas provide extensive resources of valuable data for and about the students. Furthermore, both aspects, instructional techniques and program organization, created a necessary baseline of defensible information to allow students and others to get a more objective and realistic perception of themselves in teaching. For example, the approach studied by Koran (43) pointed to the aptitudes of the students as they relate to the acquisition of a teaching skill, and students involved could see clearly just how they were developing in relation to the skill being taught.

Using a somewhat different approach, Hart (36) found that by changing the kind of instructional techniques used from conventional lecture-discussion to the use of discussant-stimulants he could produce significant gains in attitude. In fact, the very nature of the approach used would seem to suggest, again, that through more direct involvement of students in their own learning, more objective and defensible

profiles of students as prospective teachers can be obtained. Such profiles in turn should permit the student to make a better decision on his own as to whether or not he should continue in a program. McCall (50) in another approach using dissonance and coded feedback was able to modify behavior and influence the self-perceptions of students.

The extent of simulation in many pilot programs would suggest it as an instructional variable with real potential for providing more direct kinds of learning experiences for all students, and it should prove to be extremely helpful to those institutions with limited opportunities to place students in more continuous kinds of laboratory situations. Much of the exciting work in this area is relatively unknown to large numbers in teacher education (25) (78), but as McClure (51) points out, many of the same kinds of performance outcomes now assumed to reside as the sole property of field experiences may be attained by using simulation. Certainly the potential for the use of simulation in both admissions and selective retention needs to be explored further. Like so many other aspects of the standards, part of the problem with simulation would seem to be the lack of performance criteria with which it can be related.

The point seems to be supportable that through the selection and organization of instructional techniques students in a program can be provided with a more objective profile of themselves in teaching. It would seem safe to infer that such a profile has the potential to improve the ability of both students and institutions to treat matters of selective retention more completely.

PROGRAM INFLUENCE. As was indicated earlier, Cohen (22) and Ort (60) found positive correlations between descriptions of student teachers based on the student teaching experience and future success in teaching. One may infer from such findings that a greater emphasis should be placed on the active involvement of students in a laboratory approach to teacher education. Certainly the conclusions reflected by Bush and Gage (17) and those goals identified by Peck and Brown (61) would lend further support to an emphasis on program development designed to give students a more direct contact with teaching and a view of themselves in the teaching act. The popular response to micro-teaching, both as an instructional influence and as the core of a program in teacher education, would lend additional support to the potential to be realized from making students active partners in their own development (2) (17).

Perhaps of equal significance in the matter of program influence on selective retention is the promise reflected in a number of special projects in elementary teacher education. For example, the program described by the University of Georgia (79) provides some 2000 specifications of performance in teaching, and each one, or combinations of specifications, go to make up the basis for judging competence. This same program creates four levels of development through which candidates must pass thereby creating four distinct opportunities for the retention or dismissal decisions to be made. And each level is described in terms of performance specifications. The emphasis placed on self-pacing in the Syracuse program (76) and the University of Massachusetts Program (80) would seem to provide an additional opportunity for viewing candidate development. Projected far enough, self-pacing could make it possible for a given student teacher to select himself in or out of a program. Other pilot programs such as the one at the University of Pittsburgh (81) make use of a clinical team approach making it possible for two or more people to work with the individual student to identify strengths and weaknesses as they relate to continuing or dropping out of the program. Both the Teachers College,

Columbia University (77) and the Florida State University (33) programs emphasize the formation and development of extensive data banks throughout the entire program as an aide in making decisions both in initial selection and selective retention.

Two important features seem to stand out regarding program influence and selection retention: (1) the Primary emphasis is placed on the establishment and use of performance criteria in all programs which it would seem can only strengthen both the objectivity and utility of the program as an influence in selective retention; and (2) the emphasis given to field and laboratory aspects of programs (56) would seem to further enhance the potential for more effective selective retention procedures in programs in teacher education.

BEHAVIOR MODIFICATION. Within the context of selective retention, the notion of behavior modification is raised because of the implications for both admissions and selective retention procedures. Stated simply, if it is true as studies would suggest (74) (59) (38) that attitudes toward teaching, interpersonal problems, and the like can be modified, then why become concerned about either admissions or selective retention? Part of an answer may reside in decisions made involving selection ratios and the development of useful definitions of teacher competence.

Those who find themselves especially interested in the potential reflected in behavior modification to date may wish to follow the development of the pilot program at Michigan State University (54) where the basic program orientation is built around concepts related to behavior modification. Combining basic program developments from the area of behavior modification with the potential reflected in group and individual counseling tends to give some hope of additional avenues we may profitably explore in our efforts to develop more and better classroom teachers.

Selective retention, then, continues to suffer from many of the same problems encountered in admissions work. There is an absence of criteria and related information from which one may draw conclusions with any degree of confidence. There is evidence to suggest that some students do select themselves out of a program, but the reasons may vary and there is no reason to assume that such people would not select themselves out of any college or university program. Lurking not far behind all of the more obvious concerns about selective retention seems to be the basic human concern that having been able to give these people who drop out more help and encouragement they might have remained in the program and might have emerged as highly capable teachers. There are instructional influences--simulation, microteaching, observational learning--that suggest a potential for future development in selective retention, but not enough is known as yet of the potential of such techniques on a broad scale. Program developments also give every indication of providing increased potential to more completely operationalize a process of selective retention. In particular the emphasis placed on the development of performance specifications in relation to the learning outcomes to be produced suggests a real potential for more objectively treating the process of selective retention. Then, too, it would seem that instructional techniques and counseling methods hold promise of producing desirable and useful kinds of behavioral modifications which, in turn, relate directly to selective retention. Currently, however, selective retention processes seem neither to be uniform in development nor extensive in application. In those cases where selective retention processes do exist the kinds of information used are often incomplete or only distantly related to the effort being made to

select and reject candidates already in a program.

STUDENT INVOLVEMENT

Student involvement has been described as a process of interaction between students and the institution in the development of new programs and the evaluation of existing programs. Implicit in such a standard is the notion of (1) procedures for involving students, (2) extent and nature of student contributions, and (3) a consideration of the kinds of students involved in program development and evaluation.

PROCEDURES. There is little if any information available to suggest that the involvement of students achieves any specified goal. It seems safe to assume that at least three different kinds of involvement procedures exist among the institutions: (1) student membership on standing or Ad Hoc committees related to program development and the evaluation of existing programs; (2) student membership on student advisory councils; and (3) written or oral student reactions to the substance and form of existing programs obtained from students deliberately or on an optional basis by individual faculty. It seems logical to assume that one or more of the above might be defended philosophically on the grounds of student partnership in the on-going enterprise of education. It may also be defended on the simple logic of obtaining feedback from those most directly affected by the program. Further, to the extent that one supports a move toward individualization or supports resolving concerns as identified by Fuller (34) (35) as the basic focus of a program, then to that extent does student involvement seem defensible. The fact remains, however, that there is little if any evidence that either confirms or denies the value of making such a provision or that can help us to select one form of student involvement over others. Put another way, involving students through any or all such procedures may make sense because it is logically defensible, but in practice there is little evidence to support or reject any of the procedures in terms of differences they produce in the quality of programs developed.

Once again there seems to be more promise in the matter of procedures related to experimental programs--career seminars, group counseling, and individual conferences as they are described in some of the pilot programs (54) (76) (77) (79) (81)--than there is any real evidence already in the literature to support or reject different ways of involving students.

CONTRIBUTIONS OF STUDENTS. Once again there is little if any substantial evidence to help in identifying the nature and extent of student contributions to program development and evaluation or in describing the consequences of such contributions. There is evidence to suggest that some of the pilot projects (81) were revised as a result of student response to the original program, and there is some defensible basis for inferring that direct student involvement and contributions at Stanford (17) have helped shape the present nature of their program. The writer, however, was unable to find any direct study of either contributions made or consequences produced from the involvement of students in either program development or evaluation.

It is probably safe to say that student contributions have been more influential in reshaping and directing the efforts of individual faculty members than they have been in the development or evaluation of total programs. While it is known that institutions around the country have attempted to support evaluation of instruction through various kinds of approaches, thus far the literature does not seem to reflect any effort to systematically study the extent and nature of such contributions or consequences produced.

STUDENTS TO BE INVOLVED. At first glance, it would seem logical to assume that the involvement and subsequent contributions of all shapes and sizes of students has much to recommend it. There is some reason to believe, however, that institutions and faculty really should be more discriminating in determining which students are to be involved and the degree of importance to be attached to student contributions.

Carter (21) studied the effect of student characteristics on three different kinds of student evaluations of university instruction. While there were no direct companion studies identified that either confirmed or denied Carter's findings, it can be inferred that a need for caution exists on the part of those people seeking to involve students indiscriminately. Carter points to the fact that we need to know much more about what kinds of students make what kinds of responses in what kinds of evaluative situations before we can start using student contributions as reflections of thoughtful, sincere, objective and purposeful responses to either the formation of new programs of the evaluation of existing ones. At this point, where student involvement is concerned, it would seem that what you find out depends on who you talk to.

In essence, it is one thing to say students hould be involved in a complete interaction with existing program evaluators and with those developing new programs. It is a much different thing to suggest the way in which such student involvement is to be structured, what contributions one can expect to get, and which student responses should be given the greatest amount of consideration. Perhaps John Locke gave us the best description for the current level of understanding in matters of student interaction when he referred to knowledge as an "unknown somewhat." What we know about student interaction seems to be an "unknown somewhat."

RECOMMENDATIONS FOR FURTHER STUDY

The reader should remember that the recommendations presented in this section are by-products of the inferential and judgmental activities used in the preceding section. This does not mean that there have not been significant studies with meaning for the standards and their evolution. It does mean, however, that there have not been nearly enough studies done to warrant placing a blind faith in the standards at this time, and that a real need does exist for additional study. The following recommendations, therefore, are made in the belief that further study in these areas can provide a more useful and defensible basis for the determination of standards for admitting, selectively retaining, and actively involving students in program development and evaluation.

RECOMMENDATIONS

1. To accept standards on the basis of some historical notion that opts for their presence because they have always been around is one thing, but to insure the need for them through systematic study is something else. And while it may be heretical to suggest it, it seems true that teacher education has not as yet demonstrated directly a need for standards for admissions. It is recommended, therefore, that a series of longitudinal studies be initiated by several institutions as a joint enterprise to determine to what extent the presence or absence of such standards makes any real difference in the quality of the candidate produced by a teacher education program.

2. Implicit in the literature related to the standards under consideration here is the belief that until we are able to describe competency or effectiveness in teaching we will never be able to develop useful standards for admissions, selective retention, and programs for student involvement. There is a need, however for greater emphasis to be given to the matter of defining teacher competence in terms of proximate rather than ultimate outcomes. It is recommended, therefore, that an increased amount of effort be put forth to contrast and compare the outcomes produced by preparing teachers using both kinds of outcomes. Perhaps the ultimate decision will require some philosophical deliberations, but the implications for the standards here are quite real. To admit on the basis of potential reflected in terms of one's ability to eventually behave in an ultimate sense may make a considerable difference when compared with potential sought in candidates in terms of proximate outcomes based on a description of learner needs.

3. It is recommended that the matter of priorities and the establishment of priorities in relation to the standards involved here be given study with attention directed toward the concept of critical functions as they relate to the determination of priorities. It seems evident that priorities now exist and operate in various ways to influence the standards. What is needed is more proof of the consequences produced by establishing different priority rankings in matters related to this section of the standards.

4. It is recommended that the effectiveness of standards that simply prescribe activities in which an institution should engage be compared with standards that not only prescribe activities but provide known quantities or degrees to be produced by such activities. Such comparisons may be done in terms of the significance of the findings for the attainment of identified program objectives.

5. It is recommended that attention be given to the matter of the degree of significance that findings must have before they will be considered as useful for the development of standards in the areas of admissions, etc. Are we in search of perfect or near perfect correlations or are we willing to gamble that findings of less significance are useful and must be incorporated because the current state of affairs requires action now?

6. It is recommended that exploratory studies into differences produced by taking individual expectations versus institutional expectations be initiated. For purposes of the standards reviewed here, making the individual the focus of the preparatory program would seem to imply a much different approach than one built from a primary concern for institutional economy and efficiency.

7. It is recommended that additional energy be expended to insure that grades, language competency, emotional stability, and other common criteria have not suffered from a lack of effective means of measuring their relationship to competency.

8. Growing out of recommendation seven, it is recommended that much more emphasis be placed on building useful evaluative components in the areas of admissions and selective retention. It seems that we have been able to identify some broad classifications of characteristics and traits with some reasonable potential for predicting future success in teaching. What is missing is the necessary techniques to factor such categories and measure the presence or absence of specific behaviors within these categories with any degree of validity and reliability. (In this connection it is strongly recommended that the several institutions give institutional recognition at the doctoral level to the development of hardware as a legitimate form of doctoral study.)

9. It is recommended that longitudinal studies be initiated involving variables in admission that are quite removed from the conventional criteria of grade point average, grades in selected courses, and language competency. It is recommended for example that Cook's (23) work on personal data be pursued further, and that the work initiated by Lucio and others (46) in matters of psychophysiological relationships to potential effectiveness be projected.

10. It is strongly recommended that the profession and respective institutions encourage longitudinal studies reflecting testing of hypotheses both in laboratory and in field settings. The implications of such an emphasis are clearly understood in terms of institutional personnel policies involving "publish or perish," but as several writers have pointed out, part of our problem stems from a lack of extensive study over a long period of time to permit us to say with any degree of certainty what the implications of the findings produced might be. One cannot, be preoccupied with gaining journalistic visibility and still focus primary attention on long-range investigations.

11. It is further recommended in this connection that the institutions subscribing to the parent organization that produced the standards be willing to invest some institutional funds into the investigation and subsequent production of findings in this area of the standards. This implies not only money but it suggests institutional endorsement and support for variations on programs, program components, and staff utilization.

12. It is recommended that the whole area of student concerns be investigated as it relates to admissions, selective retention, and student involvement. Fuller's work (34) (35) and the separate work of Muro (55) point to a real need to give serious consideration to the implications of student concerns about becoming a teacher. In connection with the efforts to establish concerns within the area of teacher education, Fuller (35) identifies several different questions in need of study including,

(a) Are concerns really related to teacher behavior?

(b) Are concerns manipulable?

(c) What tasks and competencies are involved in different levels (lower-higher) stages of concerns?

(d) Is a concern a function of person, situation, or both? (35)

13. It is recommended that explorations into instructional and counseling techniques in behavior modification be expanded and intensified as useful adjuncts to admissions, selective retention, and student involvement. Preliminary efforts would seem to support and justify a major effort in this direction, and positive findings could have great implications for the entire matter of admissions, individualization of programs and selective retention. Further, positive findings might go along way toward helping provide a more definitive base for one or more philosophical differences perplexing proponents and opponents of such matters as self-pacing, instructional modules, model imitation, career counseling, etc.

14. It is recommended that a major effort be undertaken to explore the feasibility and relevance of performance screening as a major tool in admissions and selective retention in teacher education. It is recognized that a lack of commonly agreed to performance specifications may hamper efforts in this matter, but the same lack of agreement on performance specifications, has not allowed to deter a considerable amount of study in other areas such as program development. Performance screening deserves more serious treatment as a viable alternative to the use of conventional criteria than it would seem it has thus far been accorded.

15. It is recommended that investigations into various kinds of data collection procedures be initiated to determine (a) which procedures produce the most useful kinds of data in terms of admissions and selective retention, and (b) which procedures can realistically be employed within the several institutions in terms of institutional capacity to incorporate such procedures. It is also recommended that this be a longitudinal task.

16. It is recommended that the decision-making process related to admissions and selective retention be studied to determine (a) whether or not decision-making is automatic once criteria are established, (b) whether the use of a review committee is more effective than a single decision maker such as a director in terms of time, discrimination, consistency and certainty, (c) whether there are other decision-making schemes that can be used, i.e., counseling or conference decisions, etc., that are more effective than others now in use. It seems probable that as clarity develops in the area of competency or effectiveness, the scope of criteria for admissions will expand and both continuous and dichotomous data will be used. As the criteria expand and become more complex, the need to more fully understand and implement an effective decision making process will also become apparent. Work on this important factor ought to begin immediately.

17. As was indicated earlier, the notion of recruitment in the process of admissions and selective retention received considerable visibility in the literature of the fifties and early sixties. Since that time, it has received less and less attention, and it is recommended that recruitment be investigated in terms of its feasibility and relatedness to admissions and selective retention. One might get the impression from the literature that recruitment never received sufficient study to know whether or not it really had any potential as a part of the admissions and selective retention operations of a teacher education program.

18. Recruitment is not unrelated to the concept of a selection ratio, and it is recommended that the nature and extent of the operation of selection ratios in teacher education be investigated. In an ideal sense, if a recruitment program was effective, the selection ratio could always remain low and the potential competitive-

ness might foster a more objective system of admissions and retention. At the same time, a selection ratio also would require greater attention to time, discrimination, consistency, and certainty in admissions and selective retention, and all these are in need of more intensive study.

19. It is recommended that additional investigations into the area of withdrawals from programs be projected. Such information has relevance for the evaluation of existing admissions criteria and for the development of future criteria. It is further recommended that such investigations be maintained on a continuous basis and some yearly accounting for all institutions be initiated. It seems obvious that a general lack of data banks among the several institutions would hamper the ability of the institutions, standards or not, to really be able to systematically evaluate their own efforts. The investigation of the nature and extent of withdrawals and continuations by students originally admitted to teacher education can provide useful data for program decisions in need of being made.

20. It is recommended that the concept of self-selection in terms of admissions and selective retention in programs be studied. It is argued by some that students do select themselves in and out of the program, but neither the nature nor extent of such activity is understood or adequately described. Here again, such information does not either support or refute any standard, but such information does have meaning for the complete study of admissions and selective retention.

21. It is recommended that additional study be promoted in the area of effects produced by variations in instructional techniques in education programs. In particular, such studies ought to be concerned with differences produced in the kinds of students staying in or dropping out of programs. These same studies could also determine whether or not different and more complete kinds of information related to selective retention might not be produced. Perhaps the time has come for education to study the impact and significance of variations on its own instructional theme after studying so intensively the relationships between various instructional techniques and outcomes at other educational levels.

22. No doubt the information produced by the evaluation studies in conjunction with the pilot programs in Syracuse University (76), Florida State University (33), University of Toledo (82) and others will produce valuable information related to all aspects of the standards under consideration. In particular, however, it is recommended that the use of instructional modules as organizing centers for programs be studied in connection with admissions, selective retention, and student involvement. What differences does the use of instructional modules produce when compared with the use of conventional approaches? To what extent are similar outcomes achieved by two or more differing programs? Is self pacing or individualized instruction as a program approach a viable alternative to conventional patterns in terms of more effectively achieving designated outcomes? How does the concept of differentiated staffing fit in as a model for program development? How would a program organized around the concept of differentiated staffing be similar to or different from conventional programs, and how might the two compare in their ability to achieve designated learning outcomes in a program of teacher education? Is career counseling a legitimate component of program development and what differences are produced as a result of its presence or absence in programs of teacher education? Does its presence or absence affect the kinds of pupils retained in or dropped from the program? What differences are produced when programs are solely field oriented as opposed to programs partially field and partially classroom oriented as opposed to programs solely classroom oriented?

23. It is recommended that simulation be studied more extensively to determine its implications for use in admissions and selective retention.

24. It is recommended that additional attention be given to role expectations of students seeking admissions, and that the relative influences of both student and staff expectations be investigated in terms of implications for all aspects of the standards under consideration.

25. It is recommended that the role of counseling be studied in terms of its contribution both to admissions and selective retention. It is also recommended that it be studied in terms of its involvement in the formation of a basic approach to teacher education.

26. It is recommended that the nature and extent of student contributions to program development and evaluation be studied. It might be helpful to know what the differences would be between programs developed conventionally and a teacher education program planned cooperatively by students and faculty. The similarities and differences produced might have real implications for program development and evaluation. Even a status study into the extent and nature of student contributions to program development and evaluation would be helpful in shaping additional investigations.

27. It is recommended that study be initiated involving the procedures available for use in involving students in program development and evaluation. Procedures and contributions are probably related, but there is a need to know what differences result from the use of varying procedures for involving students.

28. More fundamental, of course, is the whole question of whether or not student involvement in program development and evaluation really makes any difference at all. And it is recommended that efforts be made to determine what differences, if any, are produced by systematic and deliberate involvements of students in program development and evaluation.

29. A need also seems to exist to explore much more extensively the nature of students who are or who could be involved in a system of program development and evaluation. Who are the students whose involvement produces the greatest contributions? How do students differ in terms of responses to different procedures or different kinds of contributions made? Is student involvement a matter of personal responsibility or should institutions actively seek student members for participation in such tasks? On what grounds could distinctions be made between student members if such distinctions proved to be desirable?

A BEGINNING

At this point one typically develops a set of conclusions. It seems more appropriate, however, to think in terms of a beginning from this point. The standards, it has been concluded, exist more at the pleasure of conventional wisdom than any real empirical base. The state of the research base is such that much of it is not directly related to the standards necessitating inferential and judgmental processes as a means of demonstrating support. The need is to begin to study the standards directly, to establish dependent and independent variables

suggested by the standards and to conduct related research suggested by such variables, and to develop standards that are both defensible in terms of contributions they make to improving or insuring a minimally desirable level of accomplishment by the institutions and that make comparisons a reality. There is a need for member institutions to begin to work cooperatively, not competitively, for the betterment of programs. The time has come for institutions to come of age and put common good above institutional prestige. As regards the standards and their research base at this point in time, then, where else is there to begin except at the beginning?

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BIBLIOGRAPHY

1. Aiken, L. R. "Three Alignment Charts For Use in Selective Admissions," Journal of Educational Research, LXII (September, 1968), 14-17.

2. Allen, Dwight W. "Micro-Teaching: A New Framework for In-Service Education," High School Journal, LXIX (May, 1966), 355-62.

3. Altenheim, M. R. "Guidance and Selection in a Teacher Education Program: Hunter College of the City University of New York," The Journal of Educational Sociology, XXXVI (October, 1962), 70-78.

4. American Association of Colleges of Teacher Education. Yearbook. "Evaluation and Selection Instruments in Teacher Education," XVIII (1965), 139-47.

5. Barr, Arvil S. "The Nature of the Problem," Journal of Experimental Education, XXX (September, 1961), 5-9.

6. Barr, Arvil S. "Teaching Effectiveness and Its Correlates," Journal of Experimental Education, XXX (September, 1961), 134-156.

7. Barr, Arvil S. "Wisconsin Studies of the Measurement and Prediction of Teacher Effectiveness: A Summary of Investigations," Journal of Experimental Education, XXX (September, 1961), 1-156.

8. Beeley, A. J. "Clinical Techniques for the Selection of Prospective Teachers," School and Society, L (August, 1939), 183-85.

9. Biber, Barbara and Charlotte B. Winsor. "An Analysis of the Guidance Function in a Graduate Teacher Education Program," Chapter Five in Mental Health and Teacher Education. Forty-sixth Yearbook of the Association for Student Teaching. Washington D. C.: 1967, p. 81-119.

10. Bledsoe, Joseph C. Comparison Between Selected Characteristics and Performances of Provisional and Professionally Certified Beginning Teachers in Georgia. Final Report. Washington D. C.: ERIC Clearinghouse on Teacher Education, September, 1967. (015 553).

11. Bolton, Dale L. Variables Affecting Decision-Making in the Selection of Teachers. Washington D. C.: ERIC Clearinghouse on Teacher Education, August, 1968. (024 635).

12. Bondi, Joseph C. Feedback in the Form of Printed Interaction Analysis Matrices As a Technique for Training Student Teachers. Washington D.C.: ERIC Clearinghouse, February, 1969. (028 115) (Paper presented at the Annual Meeting of AERA, Los Angeles, California, February, 1969.)

13. Bowman, David L. Quantitative and Qualitative Effects of Revised Selection and Training Procedures in the Education of Teachers of the Culturally Disadvantaged. Final Report. Washington D. C.: ERIC Clearinghouse, December, 1968. (025 494).

14. Boxhill, O. J. "Scale to Aid in the Retention and Dismissal Decision," Personnel and Guidance Journal, XLV (September, 1966), 53-5.

15. Bradley, R. C. "Clarifying the Supervising Teachers Role," The Teachers College Journal, XXXVIII (December, 1966), 92-4.

16. Bunyan, Lorne W. "A Comparative Investigation of the Effects of Three Different Types of Supervisory Evaluations on Certain Latent Functions of Student Teaching." Unpublished Doctoral Dissertation, University of Oregon, 1969.

17. Bush, Robert N. and N. E. Gage. Center for Research and Development in Teaching. Washington D. C.: ERIC Clearinghouse, August, 1968. Journal of Research and Development in Education, IV (Summer, 1968), p. 85-105. (Georgia University, Athens, College of Education.)

18. Caldwell, M. S. "Student Selection, Risk, and the Error Continuum," Peabody Journal of Education, XLIV (January, 1967), 230-5.

19. Canadian Teachers' Federation. Bibliographies in Education, Number One: Pre-Service Teacher Education in Canada. Ontario: 320 Queen Street, Ottawa 4, Ontario.

20. Cardozier, V. R. Undergraduate Academic Achievement and Teaching Performance. Washington D. C.: ERIC Clearinghouse on Teacher Education, September, 1965. (016 045).

21. Carter, Robert E. "The Effect of Student Characteristics on Three Student Evaluations of University Instruction." Unpublished Doctoral Dissertation, Indiana University, 1968.

22. Cohen, Arthur M. and Florence B. Brawer. "Adaptive Potential and First Year Teaching Success," Journal of Teacher Education, XVIII (1967), 179-85.

23. Cook, Desmond L. "The Personal Data Form As a Predictor of Success in Teacher Education Programs and Entry into Teaching," Journal of Teacher Education, XV (March, 1964), 61-66.

24. Cornett, J. D. "Effectiveness of Three Selective Admissions Criteria in Predicting Performance of First Year Teachers." Journal of Educational Research, LXII (February, 1969), 247-50.

25. Cruickshank, Donald R. and Frank W. Broadbent. Simulation in Preparing School Personnel. Washington D. C.: ERIC Clearinghouse on Teacher Education, November, 1969.

26. DiTosto, Evelyn. "The Factors of Interpersonal Relations in Compatibility to Productivity of Student Teacher-Supervisor Dyads." Unpublished Doctoral Dissertation, West Virginia University, 1968.

27. Domas, S. J. and D. Tiedeman. "Teacher Competence: An Annotated Bibliography" Journal of Experimental Education, XIX (December, 1950), 101-218.

28. Durflinger, Glenn W. "Recruitment and Selection of Prospective Elementary and Secondary School Teachers," Review of Educational Research, XXXIII (October, 1963), 355-68.

29. Edson, William H. and C. J. Glatzbach, "Recruitment and Selective Admissions of the Prospective Teacher," Chapter II in Guidance in Teacher Education, Thirty-Sixth Yearbook, 1957. Washington D. C.: The Association for Student Teaching. 21-40.

30. Edson, William H. and Don Davies, "Selectivity in Teacher Education," Journal of Teacher Education, XI (September, 1960), 327-34.

31. Fisher, Rheua Dale S. "A Study of Grades and Test Scores in a Selective Admissions Program for Teacher Education." Unpublished Doctoral Dissertation, Oklahoma State University, 1968.

32. Fliger, R. J. and Karl Dowing. "Grades and Teacher Education," Illinois Education, LVI (March, 1968), 305-07.

33. The Florida State University. Summary of a Model for the Preparation of Elementary School Teachers. Washington D. C.: U. S. Department of Health, Education and Welfare, October, 1968.

34. Fuller, Frances F., Geneva H. Pilgrim, and Alma M. Freeland, "Intensive Individualization of Teacher Preparation." Chapter Seven in Mental Health and Teacher Education. Forty-Sixth Yearbook. Washington D.C.: The Association for Student Teaching, 1967. 151-87.

35. Fuller, Frances F. "Concerns of Teachers: A Developmental Conceptualization," American Educational Research Journal, VI (March, 1969), 207-26.

36. Hart, James E. "Attitudinal Change in Pre-Service Teacher Education." Unpublished Doctoral Dissertation, Ball State University, 1968.

37. Hayes, Allen P. "Effects of Cooperating Teachers and College Supervisors on Student Teachers' Beliefs." Unpublished Doctoral Dissertation, The University of Florida, 1968.

38. Howard, Rosalie D. "The Effects of Structured Laboratory Learning on the Interpersonal Behavior of College Students." Unpublished Doctoral Dissertation, University of Oregon, 1969.

39. Hudgins, Bryce B. and William P. Ahlbrand, Jr. A Study of Classroom Interaction and Thinking. Interim Report. Washington D. C.: ERIC Clearinghouse on Teacher Education, 1967. (026 344).

40. Husemoller, Kenneth E. "The Prediction of Freshman Academic Success at Eastern New Mexico University, Roswell, By Means of Selected Demographic and Standardized Test Data." Unpublished Doctoral Dissertation, Colorado State College, 1969.

41. Ivanoff, J. M. and others. "Use of Intellective and Non-Intellective Factors in Classifying Female Elementary and Secondary Teacher Trainees," Journal of Experimental Education XXXIV (Summer, 1966) 55-61.

42. Joyce, Bruce R. and Richard E. Hodges. "The Use of Developmental Studies of Teaching Styles for Research on Teacher Education." Paper delivered to the American Educational Research Association, Chicage, Illinois, February, 1966. (Mimeographed)

43. Koran, Mary Lou. "The Effects of Individual Differences on Observational Learning in the Acquisition of a Teaching Skill." Unpublished Doctoral Dissertation, Stanford University, 1969.

44. Lindsey, Margaret, et al. Annotated Bibliography of The Professional Education of Teachers. Washington D.C.: The Association for Student Teaching, 1969.

45. Loftis, Helen A. "The Study of Commitment to Teaching," Journal of Home Economics, LVI (March, 1964), 157-63.

46. Lucio, William H., Marion A. Wenger, and Thomas D. Cullen, Psychophysiological Correlates of Female Teacher Behavior and Emotional Stability: A Seven Year Longitudinal Investigation." Washington, D.C.: ERIC Clearinghouse on Teacher Education, 1967. (CSEIP Technical Report, No. 3, November, 1967, University of California at Los Angeles, California.)

47. McGee, Robert M. "Admission-Retention in Teacher Education," Journal of Teacher Education, XII (March, 1961), 81-85.

48. Mascho, Beth Vail, George H. Grangaard, Albert G. Leep, and Kenneth M. Schultz. The Elementary Education Selection Research Project. Washington D.C.: ERIC Clearinghouse on Teacher Education, 1966. (012 254).

49. Mason, Ward S., Robert J. Dressel, and Robert K. Bain, "Sex Role and the Career Orientations of Beginning Teachers," Harvard Educational Review, XXIX (Fall, 1959), 370-83.

50. McCall, Kendrick M. "The Modification of Teacher Behavior and Self-Perceptions: Effects of Dissonance and Coded Feedback." Unpublished Doctoral Dissertation, Rutgers - The State University, 1969.

51. McClure, L. Morris. "Screening For Teacher Education," Educational Leadership, XXV (November, 1967), 44-8.

52. Medley, Donald M. Some Notes on Validating Teacher Selection Procedures. Washington D.C.: ERIC Clearinghouse of Teacher Education, June, 1967. (014 445) Appeared in "Teacher Selection Methods," Harry B. Gilbert and Gerhard Lang. New York: Board of Examiners, Board of Education of the City of New York, New York, New York.

53. Metzner, Seymour. An Empirical Criterion Validation Study of Some Psychological Findings Related to Elementary School Teachers. Washington D.C.: ERIC Clearinghouse on Teacher Education, February, 1967. (013 775).

54. Michigan State University. Summary of Behavioral Science Elementary Teacher Education Program. Washington D.C.: U.S. Department of Health, Education and Welfare, October, 1968.

55. Mure, J. J. and G. M. Denton. "Expressed Concerns of Teacher Education Students in Counseling Groups," Journal of Teacher Education, XIX (Winter, 1968), 465-70.

56. Northwest Regional Educational Laboratory. Summary of a Competency Based, Field Centered, Systems Approach to Elementary Teacher Education. Washington D.C.: U.S. Department of Health, Education and Welfare, October, 1968.

57. Notestine, Earl B. "A Comparative Study of Student Retention and Withdrawal in the School of Humanities, Social Science, and Education at Purdue University." Unpublished Doctoral Dissertation, Purdue University, 1969.

58. O'Donnell, Richard W. "Proposed Revision of the Admission to Teacher Education Policy of the University of Maryland." Unpublished Doctoral Dissertation, University of Maryland, 1968.

59. O'Reilly, Ruth H. "Use of Differential Counseling Methods in Helping Student Teachers Cope with Interpersonal Problems." Unpublished Doctoral Dissertation, University of California at Los Angeles, 1968.

60. Ort, Vergil K. "A Study of Some Techniques Used for Predicting The Success of Teachers," Journal of Teacher Education, XV (March, 1964), 67-71.

61. Peck, Robert F. and Oliver H. Brown. Research and Development Center for Teacher Education. The University of Texas, Austin, Texas. Washington, D.C.: ERIC Clearinghouse on Teacher Education, August, 1968. (026 298). Also appeared in Journal of Research and Development in Education, I (Summer, 1968) 106-24.

62. Pierson, Robert A. The G. P. A. Criterion and Selective Retention in Teacher Education. Washington D.C.: ERIC Clearinghouse on Teacher Education, 1966. (014 450)

63. Rabinovitz, W. and H. E. Mitzel. "Some Observations on the Selection of Students for Teacher Education Programs," Journal of Teacher Education, XII (June, 1961), 157-64.

64. Ray, Elizabeth M. An Experimental Attempt to Maximize the Professional Potential of Home Economics Teachers Through a Program of Group Counseling in College. Washington D.C.: ERIC Clearinghouse on Teacher Education, February, 1968. (021 782).

65. Rossman, J. E. "Experimental Study of Faculty Advising," Personnel and Guidance Journal, XLVI (October, 1967), 160-64.

66. Rousseau, Leon, Herbert Hite and William Drummond. Appendix J. An Experimental Model to Enable Instructional Managers to Demonstrate Interaction Competency. Washington D.C.: ERIC Clearinghouse on Teacher Education, October, 1968. (026 315). (Appendix J in "A Competency Based, Field Centered, Systems Approach to Elementary Education," Final Report. Volume II, 222-247.)

67. Ryans, David G. Characteristics of Teachers. Washington D.C.: American Council on Education, 1960.

68. Sharie, Abdullah N. "AComparative Study of Belief Systems of College Students Majoring in Different Fields." Unpublished Doctoral Dissertation, The University of Oklahoma, 1969.

69. Sharon, Amiel Thomas. "The Effect of Instructional Conditions in Producing Leniency." Unpublished Doctoral Dissertation, University of Maryland, 1968.

70. Shaver, James P. and Hyrum E. Richards. Open-Closed Mindedness of College Students in Teacher Education. Washington D.C.: ERIC Clearinghouse on Teacher Education, October, 1968. (026 303).

71. Slaughter, C. H. "Proposed Screening Program for Elementary Teacher Candidates," Journal of Teacher Education, XX (Fall, 1969), 343-6.

72. Smith, G. "Admissions Problems at a University School of Education," Journal of Educational Sociology, XXV (March, 1962), 325-28.

73. Sowards, G. W. A Model for the Preparation of Elementary School Teachers. Washington D.C.: ERIC Clearinghouse on Teacher Education, October, 1968. (027 283)

74. Spaights, Earnest and L. P. Blum. "Social Reinforcement Counseling as an Adjunct to a Course in Education," Journal of Educational Research, LX (February, 1967), 256-59.

75. Stout, Ruth A. "Selective Admissions and Retention Practices in Teacher Education," Part III, Journal of Teacher Education, VII (December, 1957), 422-32.

76. Syracuse University. Summary of the Specifications for a Comprehensive Undergraduate and Inservice Teacher Education Program for Elementary Teachers. Washington D.C.: U.S. Department of Health,Education and Welfare, 1968.

77. Teachers College, Columbia University. Summary of the Teacher-Innovator: A Program to Prepare Teachers. Washington D.C.: U.S. Department of Health, Education and Welfare, October, 1968.

78. Twelker, Paul A. "Simulation: An Overview." (Prepared for Teaching Research, Monmouth, Oregon. Mimeographed.)

79. University of Georgia. Summary of the Georgia Educational Model Specifications for the Preparation of Elementary Teachers. Washington D.C.: U.S. Department of Health, Education and Welfare, October, 1968.

80. University of Massachusetts. Summary of a Proposed New Program for Elementary Teacher Education. Washington D.C.: U.S. Department of Health, Education and Welfare, October, 1968.

81. University of Pittsburgh. Summary of a Model of Teacher Training for the Individualization of Instruction. Washington D.C.: U.S. Department of Health, Education and Welfare, October, 1968.

82. University of Toledo. Summary of the Educational Specifications for a Comprehensive Elementary Teacher Education Program. Washington D.C.: U.S. Department of Health, Education and Welfare, October, 1968.

83. White, Kinnard. "Social Background Variables Related to Career Commitment of Women Teachers," Personnel and Guidance Journal, XLV (March, 1967), 648-52.

84. Yee, Albert H. The Student-Teaching Triad--The Relationship of Attitudes Among Student Teachers, College Supervisors, and Cooperating Teachers. Washington D.C.: ERIC Clearinghouse on Teacher Education, 1967. (010 849).

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